

Appl. No. 10/720,652  
Response dated: September 14, 2005  
Reply to Office action of June 14, 2005

## REMARKS

In response to the Office Action dated June 14, 2005, Applicants respectfully request reconsideration based on the above claim amendments and the following remarks. Applicants respectfully submit that the claims as presented are in condition for allowance.

Claims 1-26 are pending in the present Application. Claims 1 and 12 are amended, Claim 2 is canceled and Claims 4, 5, 7-11, 15, 16 and 18-26 are withdrawn, leaving Claims 1, 3, 6, 12-14 and 17 for consideration upon entry of the present amendments and following remarks.

Support for the claim amendments can at least be found in the specification, the figures, and the claims as originally filed.

No new matter has been introduced by these amendments. Reconsideration and allowance of the claims are respectfully requested in view of the above amendments and the following remarks.

### Specification

The title of the invention is alleged to be not descriptive and a new title that is clearly indicative of the invention to which the claims are directed is required. Applicants respectfully submit that the present title "DRIVE IC AND DISPLAY DEVICE HAVING THE SAME" is clearly indicative of the invention to which the claims are directed. For example, Claim 1 claims "a circuit device" and Claim 12 claims "a display device comprising...a drive IC." As such, Applicants have not rewritten the title at this time.

### Claim Rejections Under 35 U.S.C. §102

Claims 1-3 are rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent Number 5,712,493 to Mori et al. (hereinafter "Mori"). Applicants respectfully disagree. Claim 1 is herein amended to include the limitations of Claim 2. Claim 2 is accordingly canceled without prejudice.

Appl. No. 10/720,652  
Response dated: September 14, 2005  
Reply to Office action of June 14, 2005

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. V. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

Amended Claim 1 recites, *inter alia*, "distances between adjacent two electrode terminals aligned in the second direction are uniform."

Mori discloses arranging the terminals *as uniformly as possible* along the *overall periphery* of the driving semiconductor element. (Col. 8, lines 4-10.) To uniformly arrange the terminals, it is desirable to arrange the terminals such that the *center of gravity* of the combination of the driving semiconductor element and all the terminals is substantially identical to that of the element. (*Id.*) Mori does not disclose "uniformly" with regard to the placement of terminals and their relation to each other. Mori merely relates "uniformly" with centers of gravity of *all the terminals* and the *overall semiconductor element* as being identical. That is, Mori discloses that so long as the centers of gravity are identical, there is not disclosure as to the arrangement of the terminals on the semiconductor element. Thus, Mori does not disclose at least "distances between adjacent two electrode terminals aligned in the second direction are uniform" as recited in amended Claim 1.

It is further contended in the Office Action that the projecting electrodes 30 in Fig. 11 disclose "the bumps" as claimed in at Claim 3. Figure 11 is a cross-sectional view taken along lines XI-XI of Figure 10. (Col. 6, lines 15-16 and Figure 11.) That is, the shape of the electrode 30 in the cross-sectional view cannot be discerned from an upper view as it is not available in Figure 11. Thus, Mori also does not disclose "the bumps has a rectangular shape when viewed from an upper side of the bumps" as recited in Claim 3.

Therefore, Mori does not disclose all of the limitations of Claim 1 (as amended) and Claim 3. Accordingly, Mori does not anticipate Claim 1 (as amended) and Claim 3. Reconsideration of Claim 1 (as amended) and Claim 3 with respect to Mori is respectfully requested.

Claims 1-3, 6, 12-14 and 17 are rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent Number 6,297,868 to Takenaka et al. (hereinafter "Takenaka"). Applicants respectfully disagree. Claims 1 and 12 are herein amended to include the limitations of Claim 2.

Appl. No. 10/720,652

Response dated: September 14, 2005

Reply to Office action of June 14, 2005

Amended Claims 1 and 12 now recite, *inter alia*, “distances between adjacent two electrode terminals aligned in the second direction are uniform,” previously claimed in Claim 2.

Firstly, Applicants find no disclosure in Takenaka of regarding distances between adjacent two electrode terminals aligned in the second direction being uniform, let alone in any specific type of arrangement or configuration of electrodes. The rejection details with respect to Takenaka on Pages 3-4 of the Office Action do not appear to even consider the limitations of Claim 2. Further, the Examiner has not stated with specificity where such disclosure of “distances between adjacent two electrode terminals aligned in the second direction are uniform” may be found. Accordingly, Applicants submit that the Examiner does not meet the burden of establishing a *prima facie* case of anticipation.

Thus, Takenaka does not disclose at least “distances between adjacent two electrode terminals aligned in the second direction are uniform” as recited in amended Claims 1 and 12.

Secondly, it is respectfully conceded that Takenaka does not disclose “electrode pads” as recited in amended Claims 1 and 12. (See, Office Action Page 3, Item 8.) Thus, Takenaka does not disclose at least “a display panel having a display area on which a gate line, a data line perpendicular to the gate line and a plurality of pixels are formed and a peripheral area on which electrode pads extended from the gate and data lines are formed” as claimed in amended Claims 1 and 12.

Thirdly, since Takenaka does not disclose “electrode pads” as discussed above, Takenaka necessarily does not disclose “a drive IC being electrically connected to the electrode pads” as further recited in amended Claim 12.

Fourthly, Takenaka does not disclose “a drive IC having electrode terminals aligned in a plurality of columns along a first direction parallel to an edge line of a semiconductor substrate and aligned in a plurality of rows along a second direction perpendicular to the first direction and bumps disposed on the electrode terminal” as further recited in amended Claims 1 and 12. The rejection details with respect to Takenaka on Pages 3-4 of the Office Action do not provide the teaching or explanation as to how or what element in Takenaka discloses the “electrodes aligned in a plurality of columns in a first direction and a plurality of rows in a second direction” as claimed. Thus, Takenaka does not disclose at least “a plurality of columns along a first direction parallel to an edge line of a semiconductor substrate and aligned in a plurality of rows along a

Appl. No. 10/720,652  
Response dated: September 14, 2005  
Reply to Office action of June 14, 2005

second direction perpendicular to the first direction and bumps disposed on the electrode terminal” as further recited in amended Claims 1 and 12.

Finally, since Takenaka does not disclose “electrode pads,” the “plurality of columns” and the “plurality of rows,” as discussed above, Takenaka necessarily does not disclose “the electrode pads are positioned at the peripheral area, aligned in the plurality of columns along the first direction and aligned in the plurality of rows along the second direction perpendicular to the first direction” as recited in Claim 13.

Therefore, Takenaka does not disclose all of the limitations of at least Claims 1 and 12 (as amended) and Claim 13. Accordingly, Takenaka does not anticipate at least Claims 1 and 12 (as amended) and Claim 13.

Claims 6, 14 and 17 are also rejected in view of Takenaka. Claims 6, 14 and 17 depend from Claims 1 and 12 and are correspondingly not anticipated by Takenaka. Reconsideration of Claims 6, 12-14 and 17 is thus respectfully requested.

Applicants respectfully submit that Claim 1 is not further objected or rejected and is thus allowable. Claim 3 depends from Claim 1 and is thus correspondingly allowable. Reconsideration and allowance of Claims 1 and 3 is thus respectfully requested.

**Claim Rejections Under 35 U.S.C. §103(a)**

Claims 6, 12-14 and 17 are rejected under 35 U.S.C. §103(a) as being obvious over Mori as applied to Claims 1-3 above. Applicants respectfully disagree.

For an obviousness rejection to be proper, the Examiner must meet the burden of establishing that all elements of the invention are disclosed in the prior art and that the prior art relied upon, coupled with knowledge generally available in the art at the time of the invention, must contain some suggestion or incentive that would have motivated the skilled artisan to modify a reference or combined references. *In re Fine*, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988); *In Re Wilson*, 165 U.S.P.Q. 494, 496 (C.C.P.A. 1970); *Amgen v. Chugai Pharmaceuticals Co.*, 927 U.S.P.Q.2d, 1016, 1023 (Fed. Cir. 1996).

As discussed above, Mori does not disclose at least “distances between adjacent two electrode terminals aligned in the second direction are uniform” with respect to amended Claim

Appl. No. 10/720,652  
Response dated: September 14, 2005  
Reply to Office action of June 14, 2005

1. This same limitation is also recited in amended Claim 12. Thus, Mori, does not disclose *all of the limitations* of amended Claim 12. Accordingly, *prima facie* obviousness does not exist regarding amended Claim 12 with respect to Mori.

Additionally, Mori fails to teach or suggest all of the limitations of amended Claim 12, clearly, one of ordinary skill at the time of Applicants' invention would not have a *motivation to modify* Mori nor a reasonable likelihood of success in forming the claimed invention by modifying Mori. Thus, here again, *prima facie* obviousness does not exist. *Id.*

Therefore, the requirements of *prime facie* obviousness do not exist regarding amended Claim 12 with respect to Mori. Applicants respectfully submit that Claim 12 is not further rejected or objected and is thus allowable. Claims 13, 14 and 17 depend from Claim 12 and are correspondingly allowable as depending upon allowable Claim 12. Claim 6 depends from allowable Claim 1 and is correspondingly allowable. Reconsideration and allowance of Claims 6, 12-14 and 17 is respectfully requested.

Appl. No. 10/720,652  
Response dated: September 14, 2005  
Reply to Office action of June 14, 2005

**Conclusion**

In view of the foregoing, it is respectfully submitted that the instant application is in condition for allowance. Accordingly, it is respectfully requested that this application be allowed and a Notice of Allowance issued. If the Examiner believes that a telephone conference with Applicants' attorneys would be advantageous to the disposition of this case, the Examiner is cordially requested to telephone the undersigned.

In the event the Commissioner of Patents and Trademarks deems additional fees to be due in connection with this application, Applicants' attorney hereby authorizes that such fee be charged to Deposit Account No. 06-1130.

Respectfully submitted,

CANTOR COLBURN LLP

By: Amy Bizon-Copp  
Amy Bizon-Copp  
Reg. No. 53,993  
Confirmation No. 4656  
CANTOR COLBURN LLP  
55 Griffin Road South  
Bloomfield, CT 06002  
PTO Customer No. 23413  
Telephone (860) 286-2929  
Facsimile (860) 286-0115

Date: September 14, 2005